ABSTRACT OF THE DISCLOSURE

A semiconductor device having a semiconductor substrate and a bonding pad portion formed on the semiconductor substrate, the bonding pad portion having: an insulating film formed on the semiconductor substrate and a first-level conductive pad layer of a large island shape formed on the insulating film; first-level to (n-1)-level (n is an integer of 3 or larger) interlayer insulating films formed on and over the insulating film; second-level to n-level conductive pad layers formed on the interlayer insulating films in areas generally corresponding to an area where the first conductive pad layer was formed; a plurality of small diameter first through holes from the first-level to (n-1) level formed through the first-level to (n-1) level interlayer insulating films in areas generally corresponding to an area where the first conductive pad layer; a plurality of first contact plugs filled in the small diameter first through holes from the first-level to (n-1)-level, the first contact plugs at each level being conductive and electrically connecting two conductive pad layers adjacent along a normal to a surface of the semiconductor substrate, among the first-level to n-level conductive pad layers disposed in and on the first-level to (n-1)-level interlayer insulating films; an n-level interlayer insulating film formed on the (n-1)-level interlayer insulating film and covering the n-level conductive pad; a large diameter through hole formed through the n-level interlayer insulating film in an area corresponding to an area where the n-level conductive pad was formed, the large diameter through hole having a size corresponding to the n-level conductive pad to expose a substantial upper surface of the n-level conductive pad; and a bonding pad formed on the n-level interlayer insulating film and n-level conductive pad via the large diameter through hole.